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AMSAT NEWS SERVICE
ANS-126

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SAT @ AMSAT $ANS-126.01
ANS-126 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 126.01
  From AMSAT HQ KENSINGTON, MD.
DATE May 6, 2018
To All RADIO AMATEURS
BID: $ANS-126.01

The end of daytime HF

The National Electric Code now requires electronics on every module of a
solar array communicating via signalling on the DC power lines to assure
EACH pair of panels can shut down independently. This is to make all
possible faults never allow more than 80 volts anywhere in the system.
This is effective 1 Jan 2019

This is the nail in the coffin of simple DC series string arrays which are
the quietest systems and almost demands microinverters or optimizers on
every panel. Refer to the QST article a few years ago about how disastrous
optimizers are to RFI and HF operations with modules all over the roof..

Here is the Solar news:
https://solarbuildermag.com/bos/nec-2017-module-level-solar-system-shutdown/

Also, what is going to happen to an array that has signaling all over it in
the near field of HF?

Although you can avoid it by going solar before then, you may have problems
when your neighbors go later.

I hate to be an alarmist but we all know what happens when ham radio and
commercial systems are incompatible and even though Ham radio might be in
the right, we are only 1 in 600 and no one is going to side with us.

We took on broadband over power and squelched that dumb idea, but now this
has the potential for equal demise of Ham radio. It should be fixable, but
we also know that there is high competition in the solar market and the
modules that are made the cheapest will be popular and will likely not be
adequately filtered.

Sorry for posting to the AMSAT-bb but it is the only HAM email reflector I
subscribe to.

If nothing else, we need to find out what systems are terrible emitters and
nip them in the bud. Maybe all it takes is driving by solar systems you
see and turing on your AM radio on a weak signal channel and seeing if the
background noise peaks near that home. But also it has individual peaks,
so it might also be nice to tune around too find the max and then check the
range. I find the noise can go hundreds of feet along the power lines....

You cant miss em... just sounds like a 60 Hz buzz on all the harmonics of
the inverter switching frequency.

[ANS thanks Bob, WB4APR for the above information]

Upcoming ARISS Contact Schedule 2018-05-04 07:30 UTC

Mill Springs Academy, Alpharetta, GA, direct via WA4MSA
The ISS callsign is presently scheduled to be NA1SS
The scheduled astronaut is Scott Tingle KG5NZA
Contact was successful for: Thu 2018-05-03 15:47:30 UTC 25 deg (***)
Students for the Exploration & Development of Space, College Station, TX, direct via W5QZ
The ISS callsign is presently scheduled to be NA1SS
The scheduled astronaut is Scott Tingle KG5NZA
Contact was successful for: Thu 2018-05-03 17:22:31 UTC 47 deg (***)

Mooreland Heights Elementary, Knoxville, TN, direct via WA4SXM/N4CFB
The ISS callsign is presently scheduled to be NA1SS
The scheduled astronaut is Ricky Arnold KE5DAU
Contact is a go for: Mon 2018-05-07 13:54:10 UTC 23 deg

[ANS thanks Charlie, AJ9N, for the above information]

EL58hx Grid Expedition - 25-27 May

The activation of maidenhead grid square EL58hx by W5PFG & AC0RA is just three weeks away. Even if you are not a grid or awards chaser, we would love to work you during this expedition via satellite. There are no permanent residents of this grid square, as the majority of it is open water in the Gulf of Mexico. What little land in EL58 is sandbar at mouth of the Mississippi River and accessible only by boat. See here: http://qthlocator.free.fr/index.php?locator=el58hx

During the entire expedition, we will be land-based in the grid, meaning this activation will count as Louisiana, Plaquemines Parish (County), USA. It counts as Islands on the Air IOTA NA-168, Burwood Island. If you participate in the 2018 ARRL International Grid Chase, this might be your only opportunity to work EL58.

Operating activity is estimated to begin around 23:00 UTC on 25 May. There are some variability in our arrival time and it will take us some time to prepare the site for operation. We will likely conclude operations around 15:00 UTC on 27 May.

There are a total of 110 satellite passes predicted, 42 being FM. While we won't work every one of those, we should be on the ones that fall into good times and the best footprints over population centers. The list below are satellites we plan to utilize:

FM: SO-50, AO-85, AO-91, AO-92
SSB: AO-7, FO-29, AO-73, XW-2A, XW-2B, XW-2C, XW-2F, CAS-4B

Skeds are available for DX and stations greater than 6000 kms distance from EL58hx. Sked via direct email only to w5pfg at arrl dot net.

Even if you worked the previous EL58 trip (K5L/mm), we'd love to work you again. This expedition we will use callsign W5PFG on satellites and AC0RA on 6m. We are hoping to work and confirm as many grid squares as possible, so if you want to work us from a nearby grid line to your home QTH, it is appreciated!

AC0RA is responsible for the 6m side of our activation. You may hear either of us on 20m and 40m. Any one who works us is encourage to spot us.

I may activate other grids in route to EL58, especially Friday morning

the 25th. I'll try to announce those via Twitter @w5pfg but it may be on
short notice.

[ANS thanks Clayton, W5PFG, for the above information]

UK Unicorn-2a PocketQube + HuskySat-1 transponder frequencies

UK Unicorn-2a PocketQube Satellite
https://amsat-uk.org/2018/05/01/unicorn-2a-pocketqube-satellite/

Amateur radio regulatory changes in Eire
https://amsat-uk.org/2018/05/01/amateur-radio-regulatory-changes-in-eire/

HuskySat-1 Linear Transponder frequencies have been coordinated by IARU.
As well as the V/U transponder for SSB/CW the satellite also has a downlink on 24 GHz
http://www.amsatuk.me.uk/iaru/finished_detail.php?serialnum=604

King's High School ARISS contact on BBC TV
https://amsat-uk.org/2018/04/19/kings-high-school-ariss-contact-bbc/

Emily Calandrelli's new book aimed at young people - Ada Lace, Take Me to Your Leader - features amateur radio and space communication. Sean Kutzko KX9X was an advisor for the book
http://www.southgatearc.org/news/2018/may/ada-lace-book-features-ham-radio.htm

AMSAT-EA May issue of English language newsletter now available
https://www.amsat-ea.org/app/download/10352773/AMSAT-EA-Newsletter_05-2018.pdf

AMSAT-UK http://amsat-uk.org/
Twitter https://twitter.com/AmsatUK
Facebook https://facebook.com/AmsatUK
YouTube https://youtube.com/AmsatUK

[ANS thanks Trevor, M5AKA, for the above information]

VUCC Awards-Endorsements for April 2018

Here are the endorsements and new VUCC Satellite Awards issued by the ARRL for the period April 1, 2018 through May 1, 2018.
Congratulations to all those who made the list this month!

There were two calls which decreased by one this month.
I have reported these to ARRL. These are not listed below.
ARRL corrected some similar errors last month.

CALL	1 Apr	1 May 2018
N8RO	1030	1040
NP4JV	699	730
N4UFO	724	725
W5RKN	575	606
NJ4Y	549	580
WD9EWK	425	430

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N0JE     248    400
NS3L     275    300
VE7CEW   251    292
AA8CH    175    218
PT9BM    172    176
K5IX     125    175
N7AGF    126    152
KE8FZT   100    151
AL6D     112    150
NA2AA    127    128
N1PEB    New    125
G0ABI    122    124
PU8RFL   101    120
NX2X     New    119
AE5B     New    100


If you find errors or omissions. please contact me off-list
at <mycall>@<mycall>.com
and I'll revise the announcement.

This list was developed by comparing the ARRL .pdf
listings for April 1, 2018. and May 1, 2018. It's a visual
comparison so omissions are possible.  Apologies if your
call was not mentioned.  Thanks to all those who are
roving to grids that are rarely on the birds.  They are
doing most of the work!

[ANS thanks Ron, W5RKN, for the above information]

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Introducing the Satellite FAQ and How-To wiki

http://sats.wikidot.com/

The main content so far:

= What apps can I use to track satellites? =
*  http://sats.wikidot.com/what-apps-can-i-use-to-track-satellites
 * A table of Android/iOS mobile apps with supported/not supported
checkmarks for various features. I don't have iOS so I had to put
question marks on a lot of features for those apps.
* If you know the status of the features let me know off list, or I
can add you to the wiki so you can edit it yourself.

= How do you know when the ISS is transmitting SSTV? =
* http://sats.wikidot.com/how-do-you-know-when-the-iss-is-
transmitting-sstv
* Includes instructions on how to setup email notifications on the RSS
feed of ariss-sstv.blogspot.com website using blogtrottr so you can be
emailed when new events are announced.

= How do you add 2 meter only digipeaters to SatPC32 =
* http://sats.wikidot.com/how-do-you-add-add-2-meter-only-
digipeaters-to-satpc32
* I just added this based on an email from 2 hours ago

= How to create multiple profiles in GoSatWatch =
* http://sats.wikidot.com/gosatwatch:multiple-profiles
* You can create the equivalent of profiles in the GoSatWatch by
cloning an element set then selecting only those satellites of
interest.
* Brad WF7T created this tutorial
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Brad, WF7T and I started this wiki.The purpose is to document answers to Frequently Asked Questions (FAQs) across the various forums like amsat-bb, the AMSAT-NA Facebook group, twitter, QRZ.com forums, etc. How-Tos are also acceptable. The goal is not to be a comprehensive source of amateur satellite information (especially not lists of all the sats, as that info is on many other sources), just to supplement what is already out there and provide a place to collect commonly requested information. More information on the intention/philosophy of the wiki can be found here:
http://sats.wikidot.com/about

If you want to add stuff or edit the wiki, please create an account on wikidot and let me or Brad know your username/email address and we can add you.

On the To-Do list [1] I have a goal to make a new page with a list of full duplex HTs. I know a list of these HTs already is on the web but I don't believe it's updated. I also know Patrick, WD9EWK has a lot of detailed info on various Chinese radios. All of this could be summarized and updated as new HTs come out. If you want to start it "that would be great." ;-)

1) http://sats.wikidot.com/talk:start

[ANS thanks John Brier, KG4AKV, for the above information]

2018 AMSAT Space Symposium, Nov 2-4, in Huntsville, Alabama

AMSAT announces that the 2018 36th Annual AMSAT Space Symposium and General
Meeting will be held on Friday through Sunday, Nov. 2, 3, & 4, 2018 in Huntsville,
Alabama. Location will be at the US Space and Rocket Center, One Tranquility Base,
Huntsville, Alabama (https://www.rocketcenter.com/). Hotel accommodations will be
next door at the Marriott at the Space & Rocket Center, 5 Tranquility Base, Huntsville,
Alabama USA.
The 2018 AMSAT Space Symposium and Annual Meeting features:
* Space Symposium with Amateur Satellite Presentations
* Operating Techniques, News, & Plans from the Amateur Satellite World
* Board of Directors Meeting open to AMSAT members
   (The AMSAT BOD will meet at the Marriott at the US Space and Rocket Center)
* Opportunities to Meet Board Members and Officers
* AMSAT Annual General Membership Meeting
* Auction, Annual Banquet, Keynote Speaker and Door Prizes !!

Our Keynote Speaker this year will be announced at a later date. Additional
information about the 2018 AMSAT Symposium will be posted on the AMSAT web site,
www.amsat.org
The Marriott at the US Space and Rocket Center is located at 5 Tranquility Base,
Huntsville, AL, 35805. Hotel Reservations for the Symposium may be made by
individual attendees directly with Marriott reservations at 1-(800)

228-9290 or
(256) 830-2222, please mention the Radio Amateur Satellite
Corporation (AMSAT),
Reference Number M-BIHHXTA.

[ANS thanks 2018 AMSAT Symposium Committee, for the above information]

ARRL Executive Committee Discussion of Small Satellite NPRM

The ARRL Executive Committee meeting on April 21 in Windsor, Connecticut, discussed the FCC's recent Notice of Proposed Rulemaking (NPRM) regarding the deployment of "small satellites" by colleges, universities, and commercial entities using experimental licenses on Amateur Radio spectrum.

The Committee was told that the International Amateur Radio Union (IARU) has changed its previous policy regarding the coordination of small satellites (CubeSats), and that FCC policy is overly restrictive in some respects and insufficiently protective against commercial exploitation of amateur spectrum in other respects. AMSAT has requested ARRL's input.

The Committee agreed that ARRL's comments should reflect their support for World Radiocommunication Conference 2015 Resolution 659 and IARU policies.

In addition, ARRL (a) will support and encourage college and university Amateur Radio experiments where the sponsor of the experiment is an amateur licensee and all operation is in amateur spectrum, and (b) will discourage commercial or Part 5 experimental operations using Amateur Radio spectrum.

******* Editor's note *******

The ARRL plans to file a comment on the FCC's Part 25 Notice of Proposed Rulemaking (NPRM). AMSAT may file comments as well, though the focus of those comments will be about any potential inference to the Part 97, Amateur Radio Service. AMSAT and the ARRL have been in contact discussing this Part 25 NPRM. Until this NPRM has been published in the Federal Register, the comment period has not opened. Once published, the comment period will be open for 45 days.

[ANS thanks the ARRL for the above information]

Satellite Shorts From All Over

+ http://www.satmagazine.com/ .... May SatMagazine available for reading
on-line or download. Seems to have mostly a commercial satellite focus this
month.

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT

Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Chris Bradley
aa0cb at amsat dot org